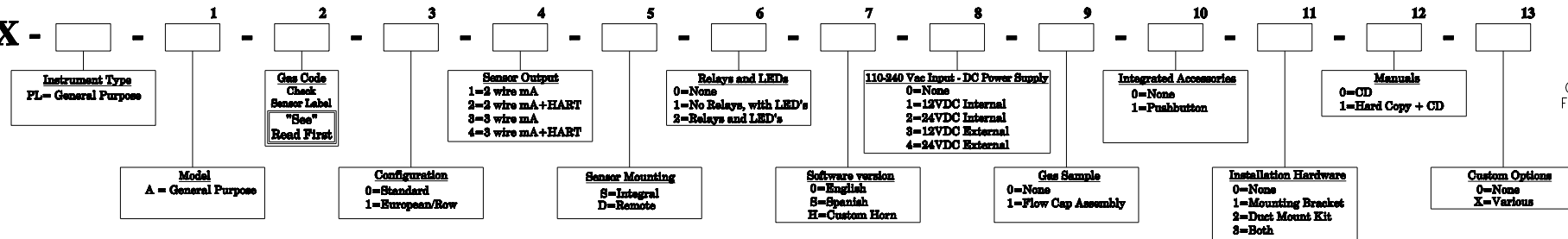


A - ULTIMAX -



Read First

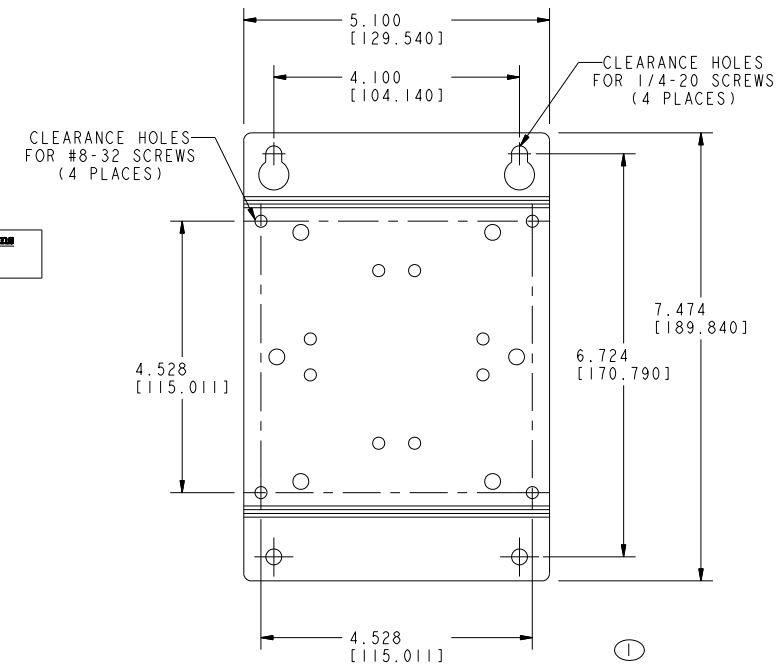
UNSCREW SENSOR ASSEMBLY

CHECK SENSOR LABEL FOR GAS TYPE AND RANGE

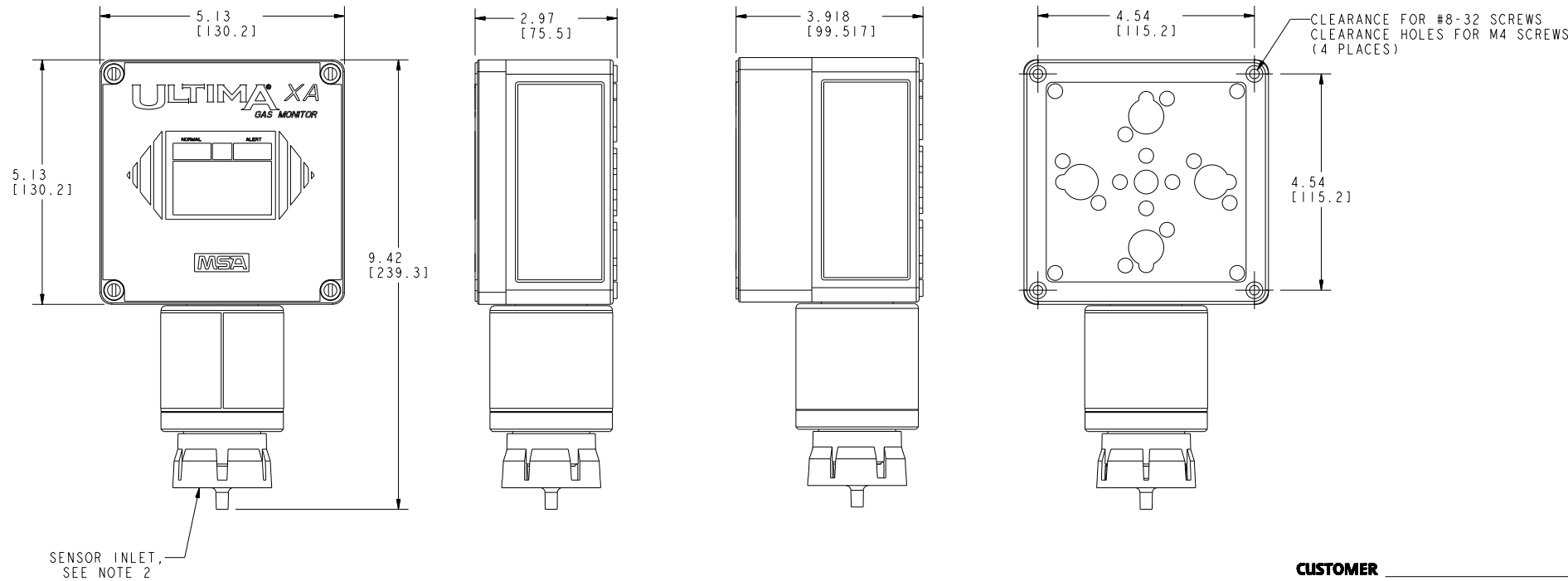
Gas Type is:

- "OXYGEN"
- OTHER (KNOWN AS "TOXIC" ON THIS DRAWING)

CURRENT DRAW FOR 3-WIRE UNITS with RELAYS			
Gas Type	Sensor Output	DC Voltage Supply	Max Current Draw
Oxygen or Toxic	3 Wire	8 VDC	250 mA
		12 VDC	175 mA
		24 VDC	100 mA



CABLE LENGTH AND WIRE SIZE FOR UNITS WITHOUT INTERNAL RELAYS (See value in ATO Box 7 to Identify Relay configuration)						
Gas Type	Sensor Output	DC Voltage Supply	Wire Size	Max Cable Length		Max Load Resistance
				without HART/with HART Feet	Meters	
Oxygen or Toxic	2 Wire	12 VDC	22 AWG	4000/900	274.32	100/250 Ohms
		24 VDC	22 AWG	7,000	2133.6	500 Ohms
Oxygen or Toxic	3 Wire	24 VDC	22 AWG	12,000/10,000	3048	600/500 Ohms



CABLE LENGTH AND WIRE SIZE FOR UNITS WITH INTERNAL RELAYS (See value in ATO Box 7 to Identify Relay configuration)						
Gas Type	Sensor Output	DC Voltage Supply	Wire Size	Max Cable Length		Max Load Resistance
				Feet	Meters	
Oxygen or Toxic	3 Wire	12 VDC	16 AWG	2,500	762	250 Ohms
		24 VDC	16 AWG	8,000	2438.4	500 Ohms

NOTES: 1. DIMENSIONS SHOWN IN INCHES (MILLIMETERS).
2. MOUNT UNIT WITH SENSOR INLET FACING DOWN.

(CONTINUED ON SHEET 2)

STANDARD ULTIMA XA

OPTIONAL ULTIMA XA with INTERNAL POWER SUPPLY

CUSTOMER _____
P.O. NO. _____
MSA NO. _____
LOCATION _____
TAG NO. _____
TOTAL NO. OF UNITS _____

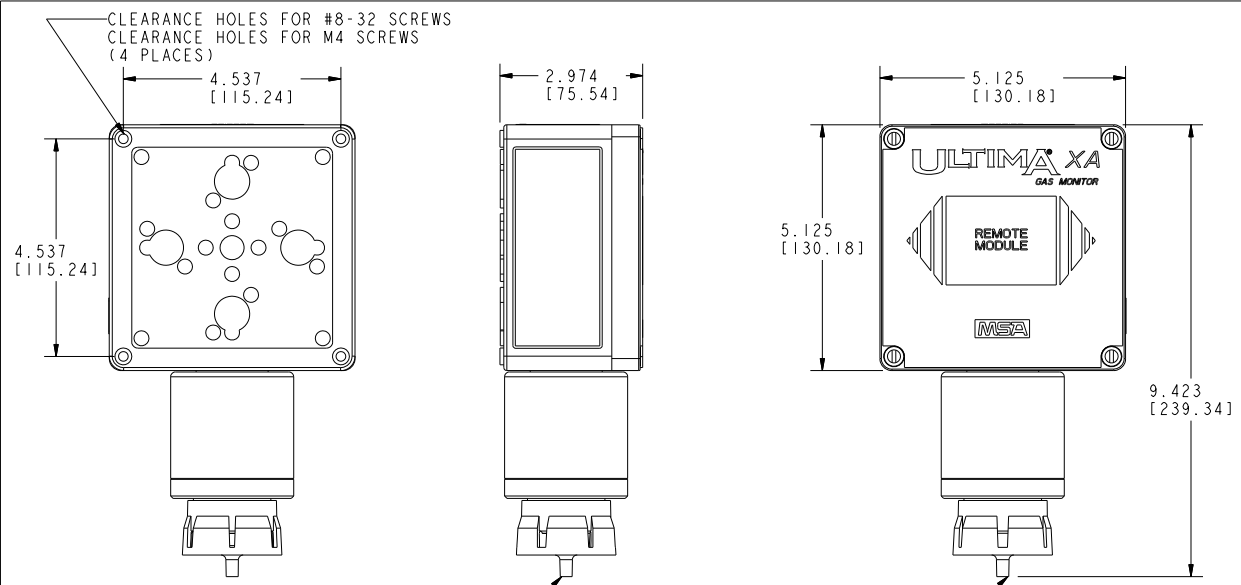
AUTHORIZED COUNTRY	MSA	MINE SAFETY APPLIANCES CO. PITTSBURGH, PA 15230, USA	THIS DRAWING IS THE PROPERTY OF MSA AND IS MADE AVAILABLE TO YOU IN CONFIDENCE AND SUBJECT TO THE FOLLOWING: NO PERMISSION IS GRANTED TO PUBLISH, USE, REPRODUCE, TRANSMIT OR DISCLOSE THIS DRAWING, OR ANY INFORMATION CONTAINED THEREIN TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF MSA EXCEPT FOR THE MANUFACTURE OF ARTICLES FOR MSA. SCHUTZVERMERK NACH DIN 34 BEACHTEN. MSA AUER GmbH.	DO NOT SCALE DWG.
	MSA STANDARD SHOP PRACTICES APPLY	JOB NO. 30009701 PH0718	APPROVAL AGENCY CODE: YES NIOSH ATTR. DOC.:	
	CODE SYMBOLS	DRAWN BY GJT DATE 5-23-2008		
	CRITICAL MAJOR A MAJOR B 100% INSPECTION	CHECKED BY S. TURNER 6-20-08		
	TOLERANCES UNLESS OTHERWISE SPECIFIED	PROJ. ENGR. C. LEHECKA 6-18-08		
	FRACTIONAL ± 1/64	QUALITY ASSURANCE J. DANNHARDT 6-18-08		
	2 PL DEC. ± 0.01	MANUFACTURING A. POLOCHAK 6-18-08		
	3 PL DEC. ± 0.005			
	ANGULAR ± 1 deg.			
	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES			
		D	DOCUMENT NO.	
			INSTALLATION OUTLINE, ULTIMA XA	
			CADD REF: SK3015-1027	SCALE: 0.625
			SK3015-1027	SHEET 1 OF 2

REVISIONS
JUN 24 2008
11-1-2010
UPDATED MOUNTING BRACKET TO ACCOMMODATE PRIMAX IR ECO-70000003147A
GJT MB

NOV 09 2010

LIFECYCLE STATE
Production

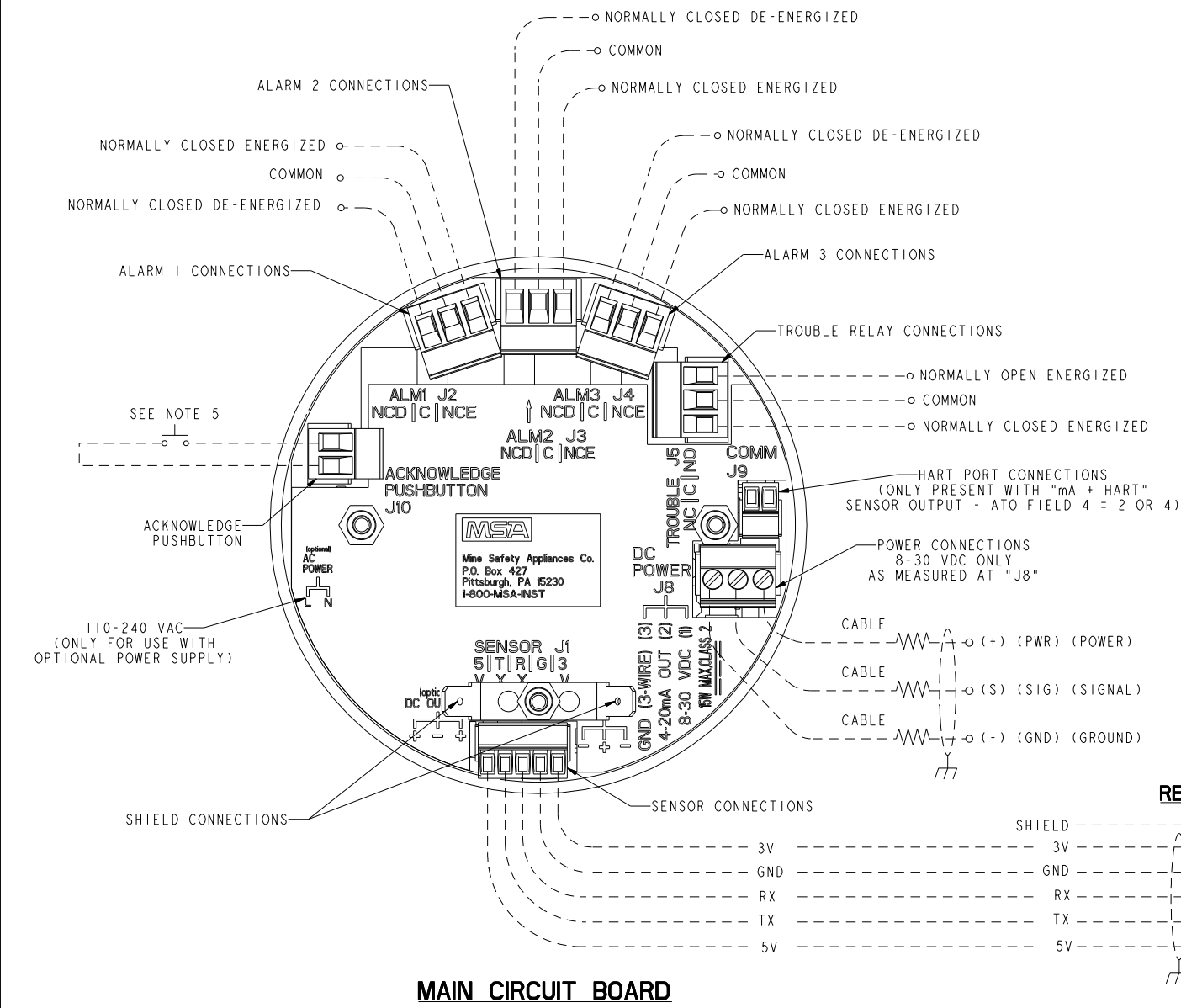
REVISION
1



**MODULE "A"
GENERAL PURPOSE HOUSING**

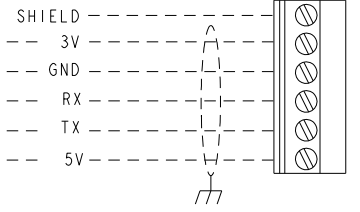
WEIGHT: 1.5 POUNDS (0.7 KILOGRAMS)
MATERIAL: POLYCARBONATE PLASTIC

OPTIONAL REMOTE ULTIMA XA SENSOR UNIT
(ATO Box 5 = D for REMOTE UNIT)



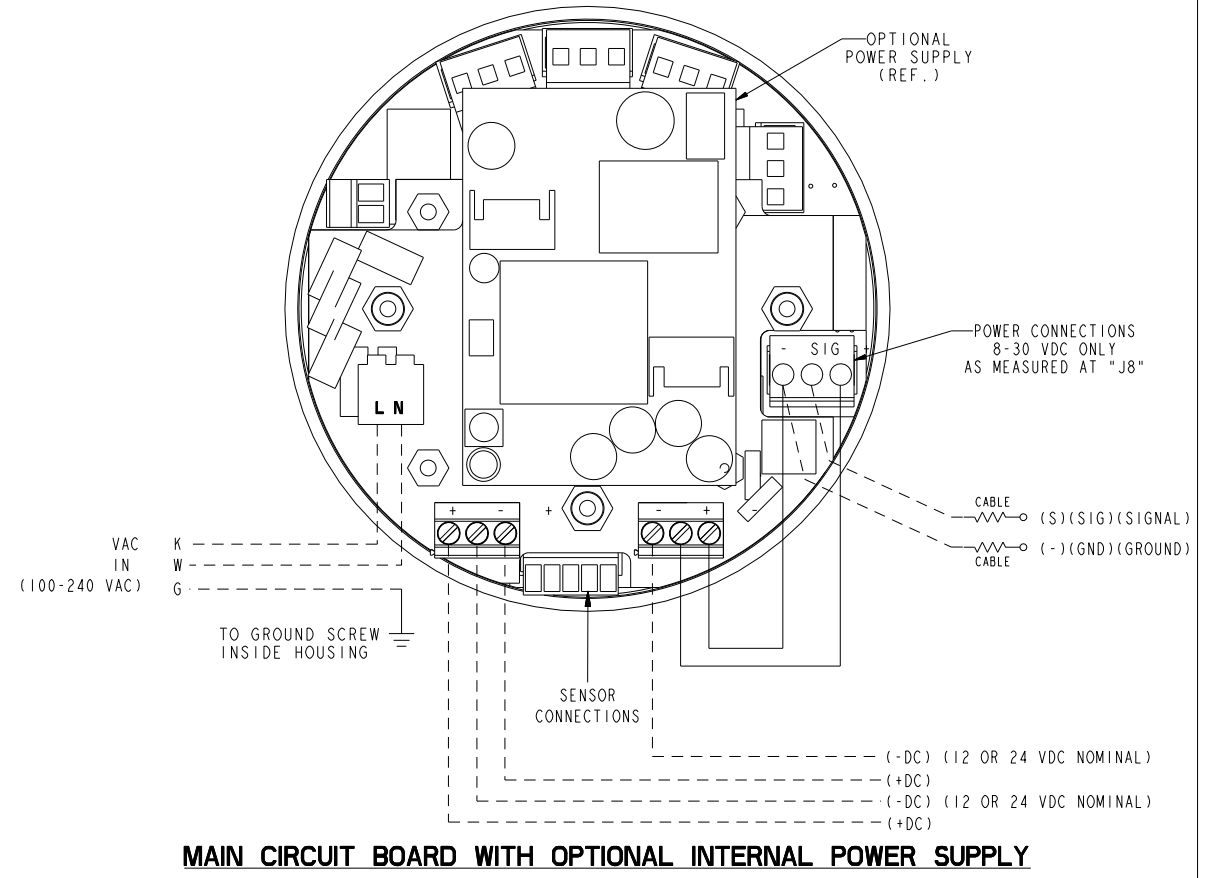
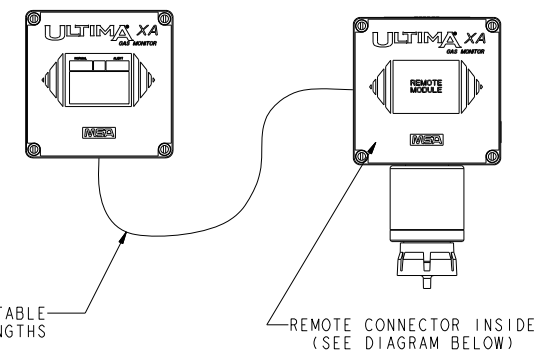
MAIN CIRCUIT BOARD

REMOTE CONNECTOR



REMOTE MODULE WIRING AND PLACEMENT
Use shielded, 5 conductor wire

Gas Type	Minimum Wire Size	Maximum Distance
Oxygen or Toxic	20 AWG	100 ft.



MAIN CIRCUIT BOARD WITH OPTIONAL INTERNAL POWER SUPPLY

- (CONTINUED FROM SHEET 1)
NOTES: 3. GROUND SHIELD AT POWER SUPPLY AND TERMINATE THROUGH RC NETWORK AT FAR END.
4. --- INDICATES FIELD CONNECTIONS BY OTHERS.
5. CUSTOMER INSTALLED NORMALLY OPEN PUSH BUTTON SWITCH.

REVISIONS

JUN 24 2008	REV. 1
NOV 09 2010	

COLOR CODE

BLACK = K	GREEN = G
BROWN = N	BLUE = B
RED = R	VIOLET = V
ORANGE = O	GRAY = A
YELLOW = Y	WHITE = W
PINK = P	TAN = T

AUTHORIZED COUNTRY	MSA MINE SAFETY APPLIANCE CO. PITTSBURGH, PA 15230, USA	THIS DRAWING IS THE PROPERTY OF MSA AND IS MADE AVAILABLE TO YOU IN CONFIDENCE AND SUBJECT TO THE FOLLOWING: NO PERMISSION IS GRANTED TO PUBLISH, USE, REPRODUCE, TRANSMIT OR DISCLOSE THIS DRAWING, OR ANY INFORMATION CONTAINED THEREIN TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF MSA EXCEPT FOR THE MANUFACTURE OF ARTICLES FOR MSA. SCHUTZVERMERK NACH DIN 34 BEACHTEN. MSA AUER GmbH.	DO NOT SCALE DWG.
	MSA STANDARD SHOP PRACTICES APPLY	APPROVAL AGENCY CODE: YES NIOSH ATTR. DOC.:	
	CODE SYMBOLS	JOB NO. 30009701 PH0718	REVISION 1
	CRITICAL Δ	DATE 5-23-2008	
	MAJOR A Δ	DRAWN BY GJT	
	MAJOR B Δ	CHECKED BY S. TURNER	
	100% INSPECTION Δ	PROJ. ENGR. C. LEHECKA	
	TOLERANCES UNLESS OTHERWISE SPECIFIED	6-18-08	
	FRACTIONAL ± 1/64	QUALITY ASSURANCE J. DANNHARDT	
	2 PL DEC. ± 0.01	MANUFACTURING A. POLOCHAK	
	3 PL DEC. ± 0.005	6-18-08	
	ANGULAR ± 1 deg.	CADD REF: SK3015-1027	SCALE: 0.625
	SEE MSA STANDARD SHOP PRACTICES FOR DRILLED HOLE TOLERANCES	DOCUMENT NO. D	SHEET 2 OF 2

**INSTALLATION OUTLINE,
ULTIMA XA**

SK3015-1027